

ABSTRACT

An air conditioner system to provide cooling or heating to a flexible material-based device includes a ventilated portion located within a flexible material body, a thermoelectric module with heat exchanges on opposite sides, an air stream source, and a power source. The ventilated portion has two chambers formed between a flexible material inner layer, an intermediate layer and a flexible material outer layer with a plurality of air vents in each of the flexible material inner and outer layers. Each of the heat exchangers is in fluid communication with one of the chambers. The air stream source provides an air flow through the heat exchangers into the chambers and out through the plurality of vent holes. The power source provides power to at least the thermoelectric module.